

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1 – 15 (cancelled)

Claim 16 (new) An *in vitro* method for testing the inflammatory effect of a test material comprising

introducing a test material comprising an inflammatory agent into a system comprising epithelial cells of gastrointestinal, respiratory or genitourinary origin which interact with the immune system and cells of the immune system and

determining the change in an immunological marker in response to the test material, the cells which interact with the immune system being on a microporous support.

Claim 17 (new) The method of claim 16, wherein the cells of the immune system are peripheral blood mononuclear cells.

Claim 18 (new) The method of claim 16, wherein the cells which interact with the immune system and the immune system cells are of matched origin.

Claim 19 (new) The method of claim 18, wherein the cells of the immune system are of gastrointestinal, respiratory or genitourinary origin.

Claim 20 (new) The method of claim 16, wherein the cells which interact with the immune system are in the form of a monolayer.

Claim 21 (new) The method of claim 16, wherein the immunological marker is a cytokine.

- Claim 22 (new) The method of claim 21, wherein the cytokine is TNF α .
- Claim 23 (new) The method of claim 21, wherein the cytokine is IL8.
- Claim 24 (new) The method of claim 16, wherein the inflammatory effect is an anti-inflammatory effect.
- Claim 25 (new) The method of claim 16, wherein the inflammatory effect is a pro-inflammatory effect.
- Claim 26 (new) The method of claim 16, wherein the test material is a probiotic material.
- Claim 27 (new) The method of claim 16, wherein the test material includes a strain of *Bifidobacterium*.
- Claim 28 (new) The method of claim 16, wherein the test material includes a strain of *Lactobacillus*.
- Claim 29 (new) A method for testing the inflammatory effect of a test material comprising the steps of:
 placing a microporous support having a layer of epithelial cells of gastrointestinal, respiratory or genitourinary origin thereon which interact with the immune system in contact with a nutrient medium in a culture well;
 introducing a composition containing cells of the immune system to the medium;
 subsequently introducing a test material comprising or suspected of comprising an inflammatory agent to either one or both cells; and
 determining the change in an immunological marker in response to the test material.

Claim 30 (new) The method of claim 29, wherein the cells of the immune system are peripheral blood mononuclear cells.

Claim 31 (new) The method of claim 29, wherein the epithelial cells and the immune system cells are of matched origin.

Claim 32 (new) The method of claim 31, wherein the cells of the immune system are of gastrointestinal, respiratory or genitourinary origin.

Claim 33 (new) The method of claim 29, wherein the layer is a monolayer.

Claim 34 (new) The method of claim 29, wherein the immunological marker is a cytokine.

Claim 35 (new) The method of claim 34, wherein the cytokine is TNF α .

Claim 36 (new) The method of claim 34, wherein the cytokine is IL8.

Claim 37 (new) The method of claim 29, wherein the inflammatory effect is an anti-inflammatory effect.

Claim 38 (new) The method of claim 29, wherein the inflammatory effect is a pro-inflammatory effect.

Claim 39 (new) The method of claim 29, wherein the test material is a probiotic material.

Claim 40 (new) The method of claim 29, wherein the test material includes a strain of *Bifidobacterium*.

Claim 41 (new) The method of claim 29, wherein the test material includes a strain of *Lactobacillus*.